



UNITED STATES AIR FORCE



# ***Air Force Aerial Targets***

***October 2012 NDIA Brief***

***Orlando, FL***

***Mr. Paul B. Garvey  
Aerial Targets Program Manager  
Aerial Targets Branch (AFLCMC/EBYA)  
Eglin AFB, FL***



# Overview



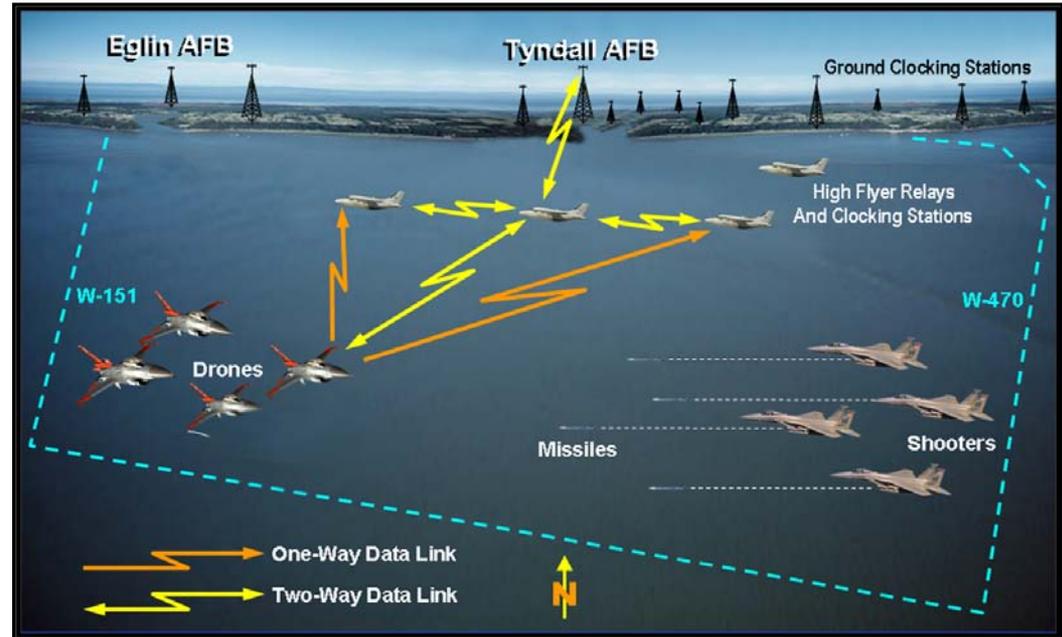
- **System Description**
- **Product Groups**
  - Subscale Aerial Targets
  - Full-Scale Aerial Targets
  - Target Control Systems (TCS)
- **Summary**



# System Description



- **Provide “Presentations” of Realistic Threat Representative Systems in Support of Joint Requirements:**
  - Lethality Testing Required for New or Improved Weapon Systems Prior to Production (10 USC 2366)
  - USAF Air-to-Air Weapon System Evaluation Program
- **Validate Performance of DoD Air-to-Air Missiles and Aircraft Systems**
  - Emulates Performance, Signatures and Countermeasures (Infrared and Electronic Attack)

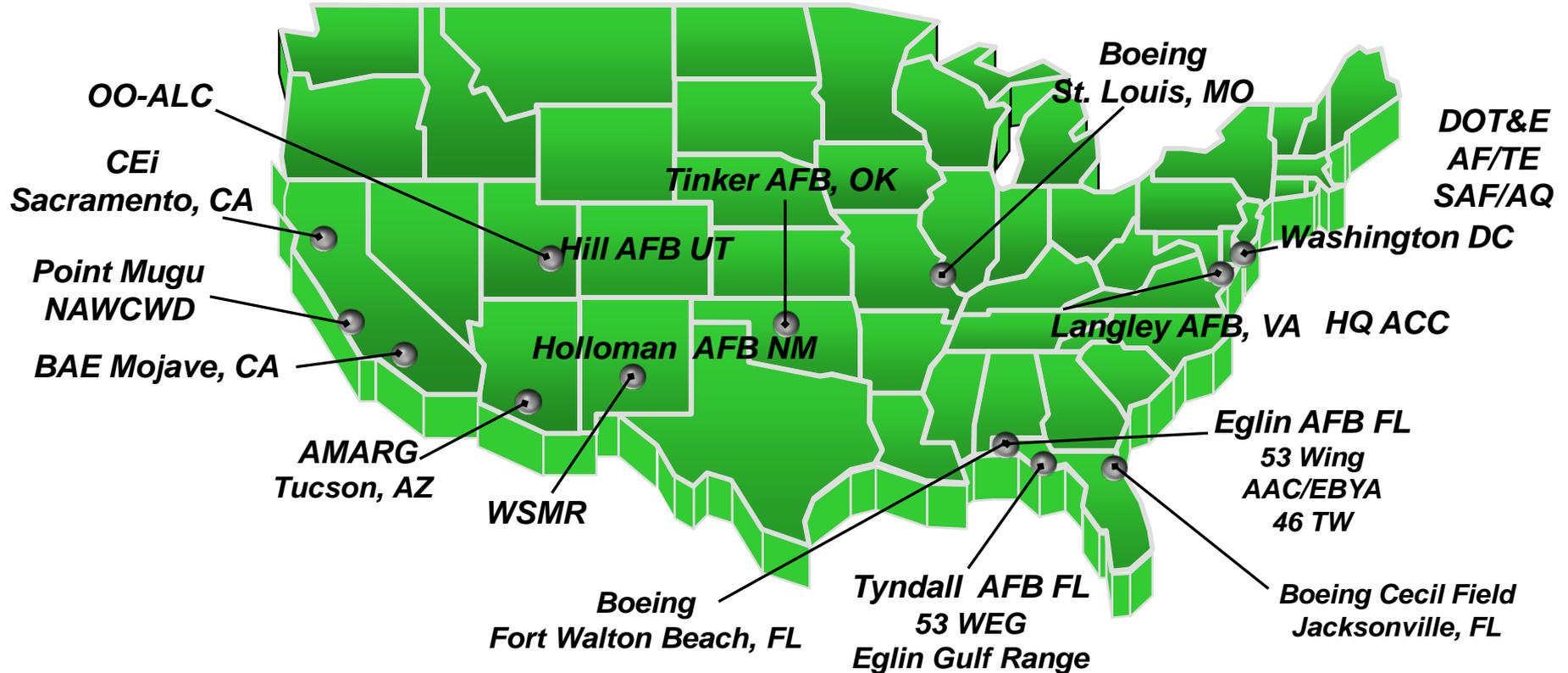


## Aerial Target “Presentations” Include:

- The Target Itself
- Threat Representative EA/IR Payloads
- Target Control System (TCS)
- Missile Scoring
- Launch, Recovery, Maintenance & Repair of Target

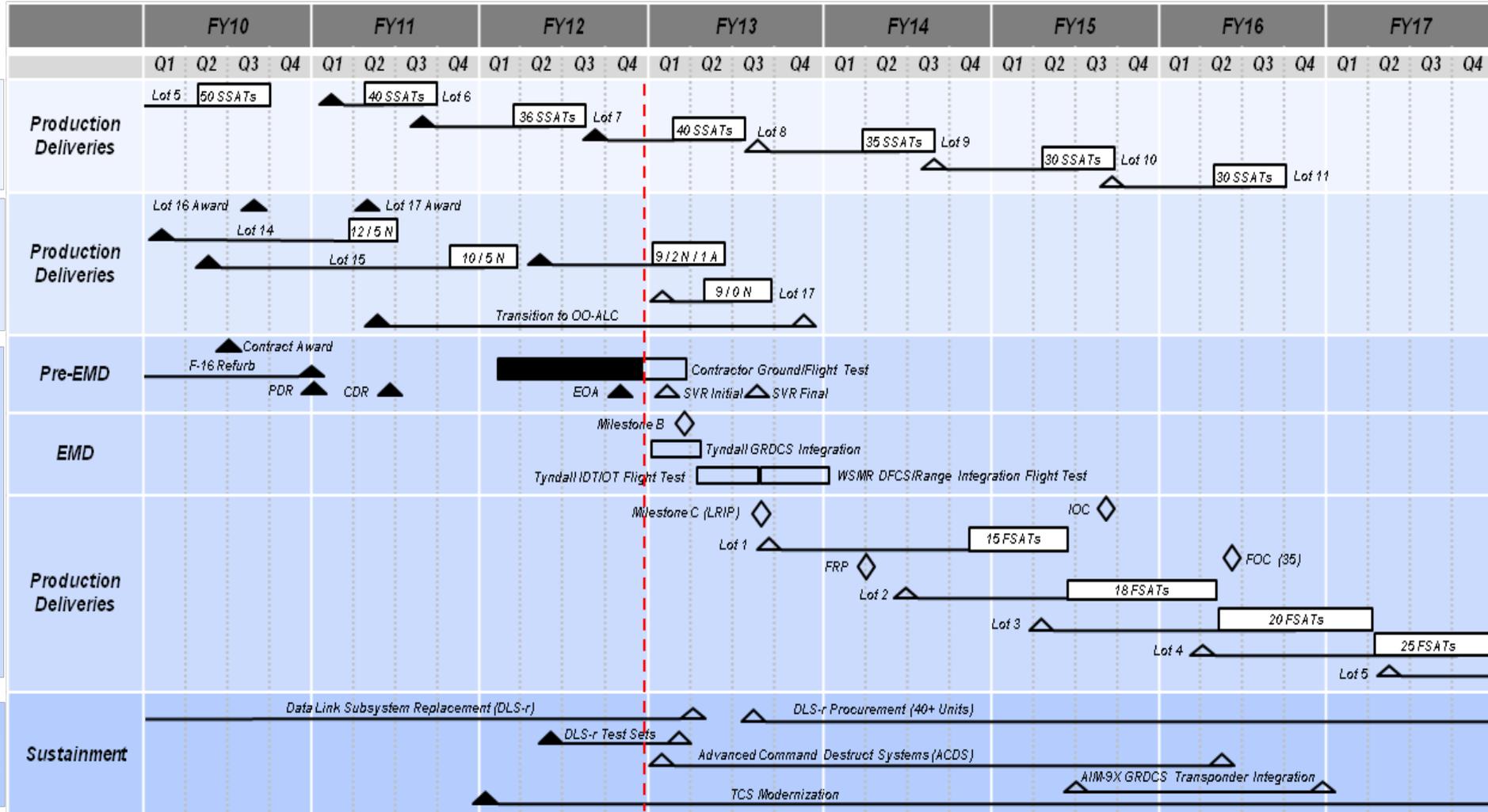


# USAF Aerial Targets Stakeholders





# Program Schedules





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# AFSAT Subscale Aerial Target

*Ms. Melody Rodgers, Program Manager*



**Prime Contractor: Composite Engineering, Inc. (CEi)**

**ACAT III**

**Contract Type: FFP**

## **Description:**

- **An Affordable, All-Composite Airframe**
- **Flies Faster/Slower, Higher/Lower, and Provides 3x+ More Presentations Than Legacy Subscale Targets**
- **Program in Production/Sustainment Phase**
- **Operates via Ground Based Target Control System**
- **Subsonic, Relatively Heavy Payload Capability**



# ***AFSAT FY12 Accomplishments***



- **Current Program Focus**
  - Sustainment Planning Through FY25
- **Awarded Lot 9 Production**
  - 265/318 Targets Delivered to Date – Ahead Of Schedule
- **FY12 Operations**
  - Launches: 107
  - Presentations: 352
  - Missile Shots: 280
- **Installed 6 LRSs at Tyndall – 3 Available for TBD Location**
- **Awarded IDIQ Spares Contract – Sep 2012**



# ***FY13 Road Ahead***



- **Continue Production**
  - Lot 10 Award ~Jan 2013 – ~24 Targets
    - Final Lot Under Current Contract
- **Planning for Lot 11-15 Production Contract**
  - RFP Release ~Feb 2013
- **Fielding Decision – Launch Rail System ~Mar 2013**

Current Procurement Quantity is 800 AFSATs



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# QF-4 Full-Scale Aerial Target

Capt Jacob Habrun, Program Manager



**Prime Contractor: BAE Systems, CA**

**ACAT III**

**Contract Type: FFP**

## **Description:**

- **Full-Scale Aerial Target for Threat-Representative Weapon System Evaluation**
- **Meets USAF, USA, USN, Allied Test Requirements**
- **Droned, Refurbished F-4 Aircraft Out of AMARG**
- **Program in Full Rate Production**
- **Operates via Ground-Based Target Control System**
- **Supersonic, High-G, Heavy Payload Capability**
- **Provides 3rd Generation Threat Representation**





# ***QF-4 2012 Accomplishments***



- **Bridging the Gap Until QF-16 IOC – 73 QF-4s On Hand**
  - Sustainment Planning Through 2017
- **Awarded Last Production Lot (Lot 17) Feb 11**
  - Delivered 303/317 QF-4s To Date – Only 14 To Go!
- **FY12 Operations**
  - 1109 Manned Missions
  - 44 NULLOS
  - 20 Kills



# *End of Program Challenges*



- **Regen/Repair Challenges With Older QF-4C Aircraft**
- **Post Production Planning**
  - Production Deliveries Complete 1QFY14
  - Sustainment Support In Place
  - Post Production CLINs for EN/LG Reach-back
- **QF-4 Transition to OO-ALC – 1QFY14**
  - DSM Function Complete After Last Delivery 1QFY14



# QF-16 Full-Scale Aerial Target

Mr. Kenneth Hislop, Program Manager



**Prime Contractor: Boeing Company, St. Louis, MO**

**ACAT: II**

**Contract Type: FPIF / FFP**

## **Description**

- **Next Generation Full-Scale Target for Threat-Representative Testing & Weapon System Evaluation**
- **Provides 4th Generation Threat Representation**
- **Meets USAF, USA, USN, Allied Test Requirements**
- **Refurbished F-16 Aircraft With Drone Mod Installed**
- **Supersonic, High-G, Heavy Payload Capability**
- **Operations Via Ground Based Target Control System**



# QF-16 Program Snapshot



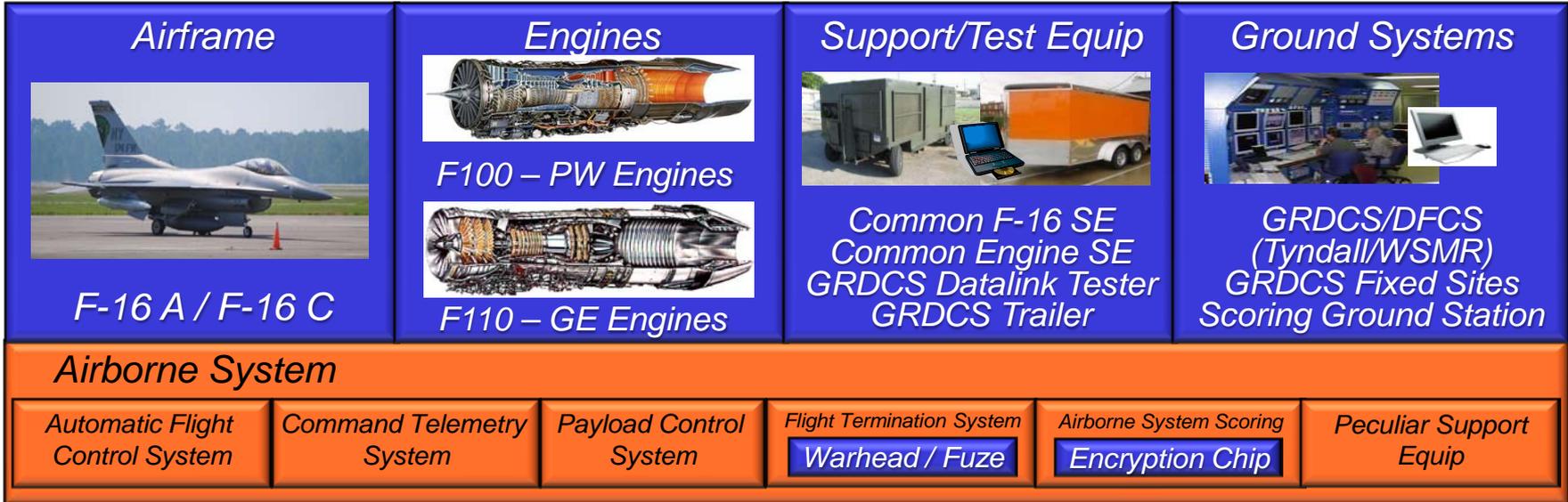
- **Production Quantity - 210 QF-16s (AF Only)**
  - Production Options in Place for Lot 1-4
- **DT/OT Oversight Program**
- **Six QF-16s Undergoing CT&E at Cecil Field – Going Well**
- **Concurrent Subsystem Qual Tests Underway**
- **Upcoming Program Milestones:**
  - Milestone B - 1QFY13
  - Milestone C - 3QFY13
  - IOC - 3QFY15
  - FOC - 2QFY16



***Program Making Steady Progress To MS B – Next Big Event is Autoland***



# QF-16 System Integration



 Government Furnished (67% of \$)

 Contractor Developed (33% of \$)

**QF-16 System Integration:  
Contractor Drone Peculiar Equipment w/ GFP**



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# Target Control System (TCS)

Ms. Kathy Fuszner, TCS Program Manager

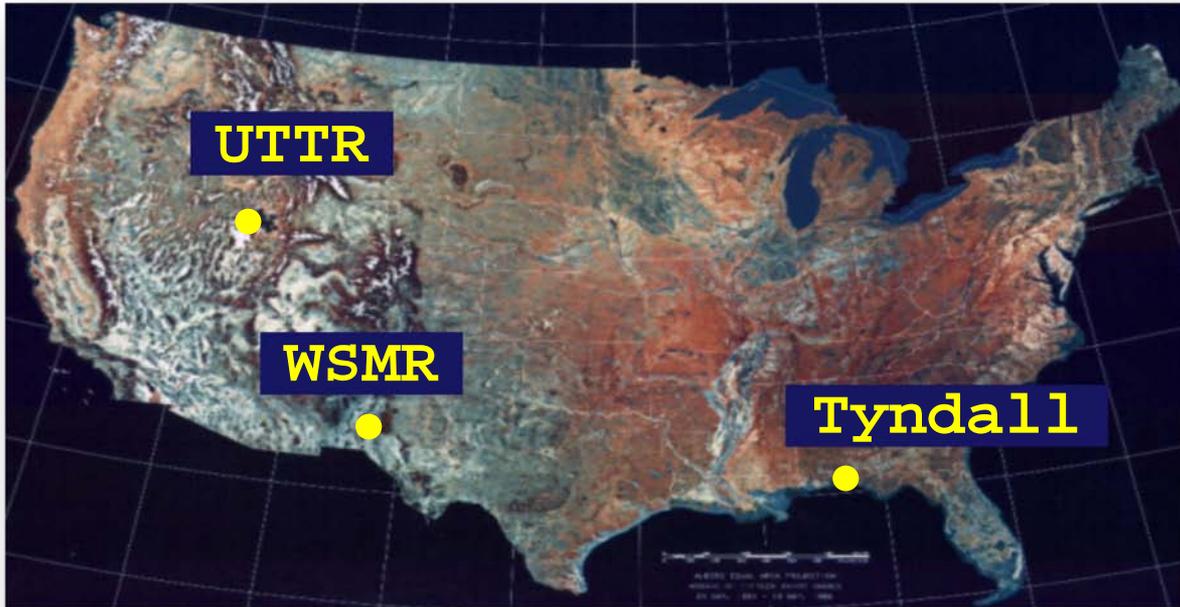


## *Description*

- Tracks/Controls 4 Targets & 10 Aircraft/Missiles
- Provides Command Destruct of Targets and Missiles
- Compatible with QF-4, AFSAT (QF-16 Integration Ongoing)
- System Developed by 96 TW, Operated by 53 WEG



# Ranges



## ***Tyndall AFB / Eglin AFB***

- Main Mission Ops (53 WEG)
- GRDCS Sustainment & Dev (96 TW)
- Target & Target Control Acq (AFLCMC/EBYA)

## ***Holloman AFB / WSMR, NM***

- Support FSAT Ops (53 DET)  
Utilizing Drone Formation  
Control System (DFCS) at  
White Sands

## ***Utah Test & Training***

- Support Combined Combat  
Archer and Combat Hammer  
Evaluation (53 WEG)



# Current TCS Efforts

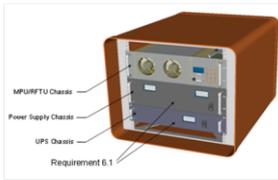


## Data Link System Replacement (DLS-r)

- Provides Data Relay for Remote Drone Ops
- Replacement Reduces Risk for Test/Trng Programs
- Qual Testing Underway
- DT/OT Starts Jan 2013
- IOC 4QFY13

DLS-r

DLS



## Platform Specific Efforts

- v58 SW Fielded Dec 2012: AFSAT & QF-4
- v59 SW Adds QF-16 Capability for EMD



## TCS Upgrades

- Replacing Obsolete Proprietary Systems w/ Open Standards
- Modern Technology Display
- AIX to LINUX Conversion
- CDS (Analog) to Advanced CDS (Digital)



## Mobile TCS Trailer/Towers



- Track and Control Capability at Cecil Field for Contractor Ground/Flight Test
- Remains at Cecil for Production



## Other TCS Sustainment

- Technology Refresh
- TCS Tech Data Package (Drawings/Manuals)





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- **AFSAT Workhorse for Warfighter**
  - Supported 49 Operational Missions in FY12
  - Next Step: Award Lot 10 in FY13
- **QF-4 Production Deliveries End 1QFY13**
  - Program Transition to Logistics Center for Sustainment
  - Planning for Availability Through 2017
- **QF-16 Preparing for MS B**
  - First Production Delivery Late FY14
- **TCS**
  - Modernization Underway
  - Backbone for Target Platforms

AERIAL TARGETS BRANCH

AFSAT

QF-4 FSAT

QF-16 FSAT

***[ CLICK HERE TO START ]***

TARGET CONTROL SYSTEMS

BORN TO FLY • BORN TO DIE





# Questions?

